

## **In the Specification**

### **Paragraph beginning on page 2, line 5;**

However, with the large number of light modulation elements, it is impracticable to assume that the SLM will be free from defects. Statistically, there will be at least a few of the tens of millions of light modulation elements of the SLM that are defective. As a result of the multiple imaging process, each defective light modulation element produces N pixel defects on the substrate surface, where N is the number of sections the image is divided into. To limit the number of defects in the transferred image caused by defective light modulation elements, the data can be shifted through the SLM to transfer each image section onto the same portion of the substrate multiple times using different light modulation elements in the SLM, as described in co-pending and commonly assigned U.S. Application for Patent Serial No.10/737,126 (Attorney Docket No. 10030571).

### **Paragraph beginning on page 9, line 6;**

To reduce defects in the transferred image due to light modulation element defects, the data 222 communicated to the SLM 110 during each exposure cycle includes only a portion of the image to enable optical oversampling of the image on the substrate. An example of an optical oversampling technique is described in co-pending and commonly assigned U.S. Applications for Patent Serial Nos10/737,126 (Attorney Docket No. 10030571) and 10/736,090 – US Patent 7,184,109 (Attorney Docket No. 10040070), which are incorporated by reference herein.

### **Paragraph beginning on page 16, line 16;**

Therefore, in accordance with embodiments of the present invention, an improved strobe line configuration is shown in FIG. 8. The light modulation elements 310 are arranged in an array 300 having rows 550a, 550b, 550c, 550d...550N-1, 550N (collectively 550) and columns 560. In FIG. 8, the strobe lines 800a...800N (collectively referred to herein as 800) are electrically coupled to two adjacent rows 550 of light modulation elements 310 within the

array 300. Thus, each strobe line 800 provides the same strobe signal 602 to two rows 550 of light modulation elements 310, and the data is shifted through the array 300 in an interleaving pattern between non-adjacent rows 550 of light modulation elements 310. By providing the same strobe signal 602 to two rows 550 of light modulation elements 310, the data is shifted through the array 300 two rows 550 at a time, reducing the number of clock cycles required to shift the data through the array 300 by  $1/I$ , where  $I$  is the interleave factor and is equal to the number of rows connected to a single strobe line 800. It should be understood that although the strobe lines 800a...800N are shown coupled to the light modulation elements 310 with electrical conductors throughout the Figures, the strobe lines 800a...800N could alternatively be coupled to the light modulation elements 310 by intervening circuits, such as buffers, as described in co-pending and commonly assigned U.S. Application for Patent Serial No. 10/810,067 (Attorney Docket No. 10030929).

**Paragraph beginning on page 23, line 19;**

In another embodiment in which the data is shifted between the columns 560 of the array 300, the strobe lines 800 are electrically connected to groups of portions of vertically adjacent columns 560 of light modulation elements 310 diagonally positioned relative to one another. In a further embodiment, the strobe lines 800 can continue in the same pattern across the entire area of the array 300. In other embodiments, the strobe lines 800 can be arranged in a first pattern across a first portion of the array 300 and in a second pattern across a second portion of the array. For example, the strobe lines 800 can be arranged in two patterns that mirror one another, and the mirroring strobe lines 800 in each portion of the array 300 can be accessed simultaneously to increase the operational frequency of the strobe lines 800 of spatial light modulator, as described in co-pending and commonly assigned U.S. Application for Patent Serial No. 10/810,414 (US Patent 7,019,879)(Attorney Docket No. 10030517), which is incorporated by reference herein.